

1M06-MLEM-PM-01
Revision 1
23 March 2006

**Directorate of Metrology
Purchase Description**

High Capacity Top Loader Balance

1.0 Scope:

This purchase description specifies a High Capacity Top Loader Balance to be used in the calibration of mass standards. Any item satisfying the salient characteristics listed below will be acceptable.

2.0 Salient Characteristics:

The High Capacity Top Loader Balance will incorporate the following characteristics, which are essential to the government.

2.1 Measurement Range:

The High Capacity Top Loader Balance will have a continuous range of 0 to 32 kilograms minimum.

2.2 Resolution:

The High Capacity Top Loader Balance will be readable to 0.1 grams.

2.3 Repeatability:

The repeatability of the instrument shall be ± 0.1 grams or better.

2.4 Linearity:

The linearity of the instrument shall be ± 0.2 grams or better.

2.5 Stabilization Time:

The typical stabilization time shall be less than 5 seconds.

2.6 Power:

The High Capacity Top Loader Balance will be capable of operating on standard 110 V AC 60 Hz. electrical power.

2.7 Environment:

2.7.1 Operating Temperature:

Electrical, electronic and electromechanical items shall be capable of operating in an ambient temperature of 65 to 80 degrees F without loss of required performance.

2.7.2 Operating Humidity:

The equipment shall maintain specified performance in an atmosphere from 20% to 50% relative humidity.

3.0 Safety:

Documentation will be provided to support the means by which electrical safety considerations have been addressed. The safety of all personnel will be assured personnel conductive or nonconductive contact with the outside of the equipment, and during the changing of the fuse with the power to the system and it's components on. This documentation shall consist of a minimum of a citing of a UL or ANSI identified standard or equivalent United States Std that the equipment conforms to.

4.0 Testing:

This item will be inspected and accepted at destination. The item will be checked with test equipment with parameters equal to or better than those required to assure that specified performance parameters are met. Test equipment used shall have first echelon certification directly traceable to the National Institute of Standards Technology (NIST) where required. Tests will be performed to assure that the item meets the requirements of paragraphs 2.1 through 2.7 of this purchase description. Such testing at destination does not relieve the contractor of performing all inspections and quality checks at the point of manufacture as necessary to assure performance as specified herein.

1. Attachments: Data Requirements